Inlow's 60-second Diabetic Foot Screen

Guidelines for diabetes educators

Halton Healthcare

Mississauga Halton Diabetes Foot Care Program

Guidelines for using Inlow's 60-second Diabetic Foot Screen

▶ Step 1: Complete an Assessment of the Left and Right Feet

Instructions: Assess both feet using the four parameters identified within Inlow's 60-second Diabetic Foot Screen[1] to identify clinical indicators and/or care deficits. Once each parameter has been assessed move on to Steps 2 and 3.

Inlow's 60-second Diabetic Foot Screen		
LEFT FOOT		**RIGHT FOOT**
1. Assess for Skin and Nail Changes	**Recommendations and Referrals***	**1. Assess for Skin and Nail Changes**
Skin ☐ Intact and healthy ☐ Dry with fungus or light callus ☐ Heavy callus build up ☐ Prior ulceration or amputation ☐ Existing ulceration (± warmth and erythema) **Nails** ☐ Well-groomed and appropriate length ☐ Unkempt and ragged ☐ Thick, damaged, or infected		**Skin** ☐ Intact and healthy ☐ Dry with fungus or light callus ☐ Heavy callus build up ☐ Prior ulceration or amputation ☐ Existing ulceration (± warmth and erythema) **Nails** ☐ Well-groomed and appropriate length ☐ Unkempt and ragged ☐ Thick, damaged, or infected
2. Assess for Peripheral Neuropathy/ Loss of Protective Sensation (LOPS)	**Recommendations and Referrals***	**2. Assess for Peripheral Neuropathy/ Loss of Protective Sensation (LOPS)**
Sensation – monofilament testing: ☐ No: peripheral neuropathy was not detected (sensation was present at all sites) ☐ Yes: peripheral neuropathy detected (sensation was missing at one or more sites) **Sensation – ask 4 questions:** • Are your feet ever numb? • Do they ever tingle? • Do they ever burn? • Do they ever feel like insects are crawling on them? ☐ No to all 4 questions ☐ Yes to any of the questions		**Sensation – monofilament testing:** ☐ No: peripheral neuropathy was not detected (sensation was present at all sites) ☐ Yes: peripheral neuropathy detected (sensation was missing at one or more sites) **Sensation – ask 4 questions:** • Are your feet ever numb? • Do they ever tingle? • Do they ever burn? • Do they ever feel like insects are crawling on them? ☐ No to all 4 questions ☐ Yes to any of the questions
3. Assess for Peripheral Arterial Disease (PAD)	**Recommendations and Referrals***	**3. Assess for Peripheral Arterial Disease (PAD)**
Pedal Pulses: ☐ Present ☐ Absent **Dependent rubor:** ☐ No ☐ Yes **Cool foot:** ☐ No ☐ Yes		**Pedal Pulses:** ☐ Present ☐ Absent **Dependent rubor:** ☐ No ☐ Yes **Cool foot:** ☐ No ☐ Yes
4. Assess for Bony Deformity (and Footwear)	**Recommendations and Referrals***	**4. Assess for Bony Deformity (and Footwear)**
Deformity: ☐ No deformity ☐ Deformity (i.e. dropped MTH or bunion, chronic Charcot changes) ☐ Amputation ☐ Acute Charcot (+ warmth and erythema) **Range of Motion:** ☐ Full range in hallux ☐ Limited range of motion in hallux ☐ Rigid hallux **Footwear:** ☐ Appropriate ☐ Inappropriate ☐ Causing trauma		**Deformity:** ☐ No deformity ☐ Deformity (i.e. dropped MTH or bunion, chronic Charcot changes) ☐ Amputation ☐ Acute Charcot (+ warmth and erythema) **Range of Motion:** ☐ Full range in hallux ☐ Limited range of motion in hallux ☐ Rigid hallux **Footwear:** ☐ Appropriate ☐ Inappropriate ☐ Causing trauma

* Refer to Steps 2 and 3 before completing this area.

1. Skin and nail

When you check the skin on both feet, be sure to look at the:

- Top
- Bottom
- Sides
- Back of heel
- Between all of the toes

1. Assess for Skin and Nail Changes

Skin
- ☐ Intact and healthy
- ☐ Dry with fungus or light callus
- ☐ Heavy callus build up
- ☐ Prior ulceration or amputation
- ☐ Existing ulceration (± warmth and erythema)

Nails
- ☐ Well-groomed and appropriate length
- ☐ Unkempt and ragged
- ☐ Thick, damaged, or infected

- Check the skin of both feet for any signs of callus or if dry with fungus.
- Fungus may appear as scaly, red and dry and is sometimes itchy.
- Check for signs of previous ulceration or amputation as well as existing ulceration.
- Look for any problems such as blisters, hemorrhagic callus, bleeding cracks/fissures.

Superficial fissuring and light callus

Deep fissuring and heavy, hemorrhagic callus

Nails

- Nails should be straight across without any jagged edges or spikes
- Check for any signs of issues such as:
  - Ingrown nails (redness, swelling, discharge)
  - Damaged or broken nails
  - Very thick nails
  - Infection (discoloration, brittle, thick, distorted)

Ingrown nails

Elongated nails

2. Peripheral Neuropathy/Loss of Protective Sensation

Monofilament – Test 10 sites per foot to see if there is any lack of protective sensation:

- Avoid testing over areas with any callus, scar tissue, wounds, necrosis.
- Demonstrate the monofilament on the back of the patient's hand first.
- Check the sites with the patient's eyes closed.
- Repeat the test on any areas with no sensation to confirm the results.

2. Assess for Peripheral Neuropathy/ Loss of Protective Sensation (LOPS)

Sensation – monofilament testing:
- ☐ No: peripheral neuropathy was not detected (sensation was present at all sites)
- ☐ Yes: peripheral neuropathy detected (sensation was missing at one or more sites)

Sensation – ask 4 questions:
- Are your feet ever numb?
- Do they ever tingle?
- Do they ever burn?
- Do they ever feel like insects are crawling on them?

- ☐ No to all 4 questions
- ☐ Yes to any of the questions

Hold the filament perpendicular to the skin and use a smooth motion when testing. Use a 3 step sequence that includes:

- Touch the skin
- Bend the filament
- Remove from the skin

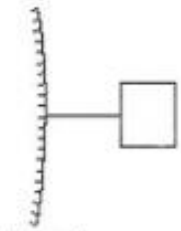


Figure 1

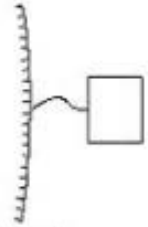


Figure 2

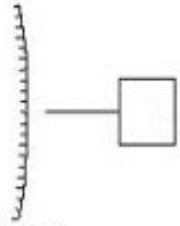
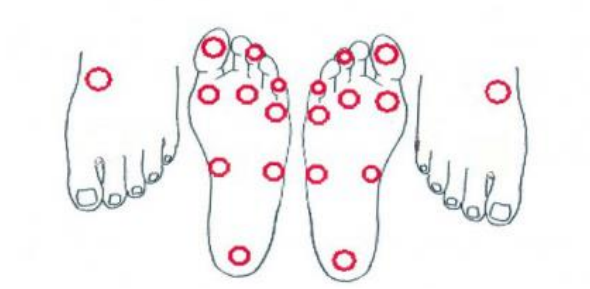


Figure 3

Figure adapted from British Columbia Provincial Nursing Skin & Wound Committee Resource

Sites to check using 10g monofilament



Ask the 4 questions as seen on the Inlow's screen sheet regarding sensation:

- Are your feet ever numb?
- Do they ever tingle?
- Do they ever burn?
- Do they every feel like insects are crawling on them?

3. Peripheral Arterial Disease (PAD)

Pedal pulses can be assessed by direct palpation or with hand held Doppler ultrasound where available.

- Pulses may be difficult to find where edema is present.
- During cold weather, allow feet to warm before performing vascular assessment.
- Signs of poor arterial supply include shiny, fragile skin and lack of hair growth.

3. Assess for Peripheral Arterial Disease (PAD)

Pedal Pulses:
☐ Present
☐ Absent
Dependent rubor:
☐ No
☐ Yes
Cool foot:
☐ No
☐ Yes

Posterior Tibialis

Dorsalis Pedis

Look for signs of dependent rubor

- Dependent rubor is redness of the skin with onset when the foot is brought from an elevated position to a dependent position (feet brought to a level lower than the heart). This may be present on one or two legs.

  This is an indicator of PAD (peripheral arterial disease).

- Check the temperature of the feet using the back of your hand, noting any differences between the two.

Dependent Rubor

4. Bony Deformity and Footwear

Look for signs of deformity on the foot:

- Dropped or prominent metatarsal heads, bunions, rigid toe deformity, overlapping toes, Charcot changes (collapsed bones, enlarged joints/bones etc.), collapsed arches
- Amputations that have caused deformity
- Acute/Active Charcot (increased temperature, redness, swelling)

4. Assess for Bony Deformity (and Footwear)

Deformity:
- ☐ No deformity
- ☐ Deformity (i.e. dropped MTH or bunion, chronic Charcot changes)
- ☐ Amputation
- ☐ Acute Charcot (+ warmth and erythema)

Range of Motion:
- ☐ Full range in hallux
- ☐ Limited range of motion in hallux
- ☐ Rigid hallux

Footwear:
- ☐ Appropriate
- ☐ Inappropriate
- ☐ Causing trauma

Bunion

Rigid toe deformity

Acute/Active Charcot

Hallux range of motion

- Check how much movement is available at the big toe by moving it up and down and feel for the type of movement – flexible/freely moving, limited movement/some restriction, very stiff/rigid.

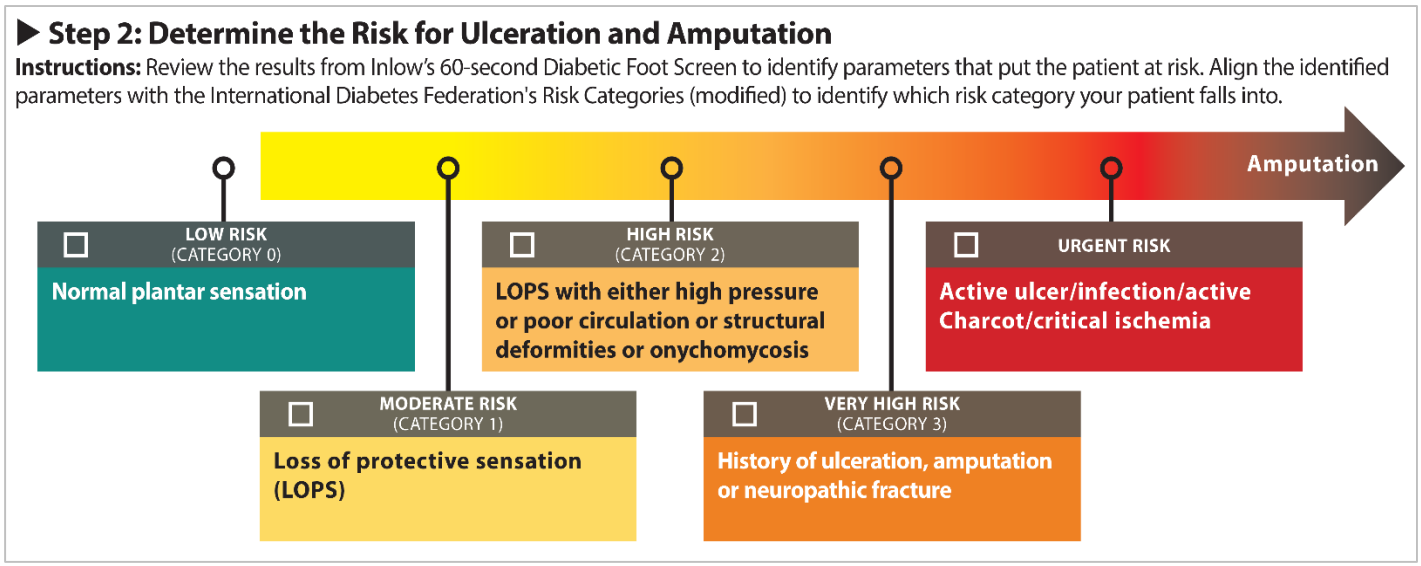
Check the footwear for appropriateness

Example of a suitable orthopedic shoe

- Check the fit of the shoe while it is being worn
  - Length, width, depth at the toe box – foot/toes should be well contained and not pressing against any edges/seams

- Check the following properties of the shoe (and innersole):
  - Cushion
  - Protection
  - Support
  - Wear and tear – inside the shoe, upper material, sole of shoe

- Check the foot for any signs of trauma from the shoe
  - Rubbing/blisters
  - Corns on tops/sides of toes (most corns here will be due to shoe trauma)
  - Pressure from possible foreign objects inside the shoe



These categories will be used when receiving program referrals to allow for booking with an appropriate provider in a more suitable time frame for each individual's needs.

Resources

Inlow's 60s foot screen
https://www.woundscanada.ca/docman/public/health-care-professional/162-60-second-foot-screen-2011/file